Statement of

Jennifer L. Dorn Director, Office of Commercial Space Transportation U.S. Department of Transportation

before the

Subcommittee on Space Science and Applications U.S. House of Representatives

March 7, 1985

I want to thank the Chairman and members of the Subcommittee for this opportunity to appear before you today to report on the progress of the Department of Transportation in streamlining Federal regulation of commercial space transportation in ways which promote, encourage and facilitate launch activities by the private sector.

Mr. Chairman, one of the factors that has made our job at the Office of Commercial Space Transportation much easier is the careful attention Congress has paid to this issue and the clear direction it has given to our efforts. Working to develop licensing procedures and other appropriate regulations to implement intent the of the Commercial Space Launch Act provisions has served only to increase our appreciation for the very real achievement of this Subcommittee and its staff, in cooperation with the Senate Commerce Committee. Despite the unusually brief time available to develop the bill, the Subcommittee can take justifiable pride in having fashioned a regulatory structure that both protects legitimate interests of the United States and at the same time is responsive to the industry's needs.

In the four months that have passed since enactment of this legislation we have witnessed a number of developments in commercial space transportation that indicate confidence in the commercial launch industry and in its potential. I doubt that anyone can predict with certainty either the nature of the contribution that private commercial launch firms will eventually make to America's space effort or the amount of time that will

pass before the extent of that contribution becomes fully apparent. Nonetheless, the determined commitment of private launch firms to establish themselves in the exciting field of space commercialization provides testimony to the fact that commercial ELVs can play an important role in providing this Nation with access to space.

As part of my report to you this morning, I would like to focus on how the Department of Transportation is acting to fulfill Congress' intent, as embodied in the 1984 Act and our progress in meeting the objectives that have been set in this regard.

<u>Industry Developments</u>

Despite the regulatory obstacles recognized by the President and this Committee at the outset and the relatively short period of time since the ELV commercialization effort started in earnest, private launch firms have already begun to make some significant gains. US ELV firms have been making serious and sustained efforts to promote their products and services in domestic and international markets. Transpace Carriers, Inc. (TCI), and General Dynamics have been marketing their launch services to potential launch customers around the world. SSI, one of the smaller and newer entrants to the industry, has been successful in attracting customers whose payloads requirements are typically smaller than those serviced by existing ELVs and the Shuttle.

Interagency Activities

The Office of Commercial Space Transportation has participated in various policy making forums, both as a member of the Senior Interagency Group on Space, chaired by the National Security Council, and the Cabinet Council on Commerce and Trade. Its role has been to contribute to the establishment of a space strategy and to evaluate initiatives that promote and encourage rivate sector participation in commercial space endeavors,

approved by the President on July 17, 1984. In addition, we have worked successfully with other executive agencies to establish a pricing policy for the commercial use of national range facilities and services. The direct cost pricing policy that has been adopted by the Department of Defense implements the intent of the National Security Decision Directive to promote the use of national ranges and sets charges for such use at a level comparable to that assessed government users. We are also working with the Departments of State and Commerce, the U.S. Trade Representative, and NASA to develop policies to increase the competitiveness of U.S. commercial ELVs on the world market.

Advisory Committee on Commercial Space Transportation

Mr. Chairman, I am also pleased to be able to report, that Secretary Dole convened the first meeting of the Department's Advisory Committee on Commercial Space Transportation in October of last year. We feel especially fortunate that industry leaders in all phases of private commercialization of space have agreed to contribute their time and expertise to assist the Department's efforts to adopt policies that will encourage the growth and development of this industry. The committee's membership has been designed to include representatives from both large and small, new and established launch firms. Members have also been drawn from the investment banking, insurance, and satellite industries, and from public groups with an interest in space commercialization.

We believe that the advisory committee's expertise and insights will provide an invaluable complement to the work of our own staff in the Office of Commercial Space Transportation. The committee will hold its second meeting March 25-26 to discuss the launch licensing process and pricing issues.

Regulatory Program

Much of our activity during the past four months has been directed to developing regulatory procedures to implement the licensing requirements specified in the Act. Among the purposes Congress articulated in the Act was the directive to DOT, as lead agency within the Executive Branch, to:

- o oversee and coordinate the conduct of commercial launch operations;
- o issue and transfer commercial launch licenses authorizing these activities; and
- o protect public safety and the national security and foreign policy interests of the United States.

Our initial efforts to comply with this mandate are concentrated upon giving the industry a clear indication of the Federal Government's primary interests and concerns in the area of private commercial space transportation — that is, the specific regulations agencies will apply to commercial space launches — as well as an explanation of when and how those interests will be asserted. To this end, we have concentrated on areas in which current and potential industry activities are most numerous or significant and where the need for clear procedural guidance is most clearly evident. These areas involve expeditious consideration of launch license applications and specification by DOT of minimum liability insurance requirements for space launches.

The Office of Commercial Space Transportation is now in the process of issuing specific regulatory guidance in each of these areas. On February 25, we published a Notice of Policy explaining the application process for launch licenses and the interagency coordination process for reviewing license applications. The Notice also indicates the nature and timing of further regulatory guidance the Office will be issuing. A copy of the Notice is attached to the testimony I have submitted.

Because of the Subcommittee's interest, I intend to briefly outline the general nature of the licensing process we have proposed. Beyond doing so, however, I think it important to describe the additional regulations the Office will shortly issue. In this way, Mr. Chairman, I can give you and the other Subcommittee members a more complete picture of the actions now under way

Licensing Process for Private Commercial Launches

We have devoted a great deal of thought and effort to developing a statement of policy which addresses clearly the questions launch firms and other interested parties have concerning the policies and procedures that DOT and other Federal agencies intend to apply in authorizing and supervising private commercial launch activities.

The basis of the licensing policy we propose to adopt is Congress' injunction that commercial launch activities be conducted in a manner fully consistent with the requirements of public safety (including the safety of property), national security and foreign policy. Equally, the policy would be to impose Federal licensing and other regulatory requirements only to the extent necessary to protect those interests. Thus, the central goal of the policy is to realize these objectives within a framework which responds to this emerging industry's needs for both regulatory flexibility and certainty.

The regulatory framework we have designed to accomplish these requirements encompasses two specialized review processes:

Mission Review and Launch Safety Review. These reviews may be conducted independently of each other and in the order (either sequential or concurrent) that is more appropriate to the nature of a specific launch.

Mission Review is the mechanism for considering the proposed launch activity in the context of the United States' international obligations as well as our national security and foreign policy interests. DOT is responsible for ensuring that a proposed launch activity, (including the launch of a vehicle, the placement of a payload in space or both) does not constitute a hazard to public health or safety and is not adverse to either U.S. foreign policy or national security interests. DOT has devised the mission review process as the means for addressing these factors.

In the course of a mission review, DOT and other agencies will examine the objective of the proposed launch and the means by which the launcher proposes to accomplish that objective. When we speak of "objective" we mean the reason for having a launch, such as to test a new vehicle or to place a telecommunications satellite in geostationary orbit. When we speak of the "means" for accomplishing the objective, our interest is in elements of the proposal such as the flight plan or the design of the payload. If the payload is one for which a prior Federal approval is required, for example an FCC license, our statute requires us to avoid duplicating the evaluation made of the payload by the responsible Federal Agency.

On the other hand, if the launch activity is directed toward placing a payload in space for which no prior Federal approval is required, DOT and other agencies would have to assess the proposed mission to determine whether the launch should be prevented because the launch of the payload in question would be hazardous to public health or safety or adverse to U.S. foreign policy or national security interests. The proposed launches by Space Services, Inc. of payloads containing cremated remains were reviewed in this manner before mission approval was granted.

The other component of the launch licensing process involves the <u>Launch Safety Review</u>. This inquiry addresses the range and vehicle safety resources an applicant can assemble to guarantee safe launch operations. Specifically, the review will focus on such factors as the suitability of the proposed launch site and flight path, the safety expertise of range personnel, ground and flight safety process and procedures, range tracking and instrumentation capability, vehicle safety systems (including flight termination mechanisms), and proposed vehicle design.

It should be noted that an applicant's choice of the site from which it proposes to conduct a launch can effectively reduce the number of safety issues DOT must address. If an applicant proposes, for example, to launch from an established national range, where safety requirements governing equipment, personnel qualifications and launch procedures developed by the government operator of the range are already in place, many of the launch safety requirements will be satisfied simply by a statement of intention to launch from that range. launch license would be conditioned by the requirement that the applicant comply with all applicable safety requirements and procedures of the range. Similarly, once DOT has developed requirements and procedures for licensing private launch sites, an applicant will be able to secure prompt launch safety approval by indicating an intention to utilize such a licensed commercial site.

When a firm has obtained both mission and launch safety approval, DOT will issue a license incorporating certain necessary and appropriate conditions pertaining to the license holders' activities from the time of license issuance through the actual launch. These conditions can be expected to include requirements that the licensee adhere strictly to range safety regulations and procedures that specific safety measures be undertaken, that airspace restrictions be observed, that a specified amount of liability insurance be obtained, and that Federal inspection, verification and enforcement requirements be complied with.

Liability Insurance

Let me turn now to the other elements of our regulatory program. We plan to issue an Advance Notice of Proposed Rulemaking concerning liability insurance issues. The Notice explains -- and requests public comment on -- issues we have identified in the area of liability insurance that we believe the Office will have to address in the process of setting minimum amounts of liability insurance, as required under Section 16 of the Act for specific space launches or for the operation of private launch sites.

We are especially concerned with the area of third party liability for damage caused to persons or property that are not involved with the launch or other space-related activity for which the Office issues a license. Our primary objective here is to ensure that insurance levels are set at a level sufficient to compensate third parties for damage and adequate to cover any liability the United States may incur as a result of the international obligations it has assumed under the 1972 Liability Convention. 1 At the same time, however, we want to be able to set insurance levels that will neither impose inordinate economic burdens on launch firms nor prevent firms from obtaining insurance at reasonable rates. Thus, we will be examining in this rulemaking proceeding the central question of whether DOT should undertake its own analyses of the risks associated with individual space launches or whether we should direct -- as NASA has done for commercial payloads on the Shuttle -- that launch firms purchase the maximum amount of insurance commercially available, or some combination thereof.

Convention on International Liability for Damage Caused by Space Objects, 24 U.S.T. 2389 (1972).

As the Subcommittee is well aware, liability insurance is only one of many issues the Office of Commercial Space Transportation must consider in the process of licensing nongovernmental space launches. Like the policy statement itself, launch licensing regulations will serve as interim guidance to applicants concerning the requirements for obtaining licenses and the procedures the Office will follow in evaluating their requests for launch approvals.

Licensing Commercial Launch Sites

The other major licensing responsibility committed to the Department involves the operation of private commercial launch sites. The issues presented here are numerous and in many ways more complex. I say this primarily because government and industry are only beginning to identify their respective interests in the operation of commercial launch sites. The Administration has demonstrated and justified its interest in encouraging commercial launch firms to utilize the excellent facilities and extensive expertise available at U.S. Government ranges. Indeed, both NASA and the Air Force are making sincere and significant efforts to assure launch operators that their commercial needs — especially their near term needs — can be met effectively on national ranges. While commercial launch firms have been receptive to using these government facilities, some have indicated that private launch sites may suit their needs as well.

My primary concern with regulation of commercial launch sites is that the Federal Government not commit itself to a rigid regulatory approach too far in advance of actual development of this segment of the industry. We believe that a more responsible approach is to explore and evaluate a variety of regulatory steps that can accommodate operational flexibility and yet ensure safe operations.

With this goal in mind, the Office of Commercial Space
Transportation will initiate studies of regulatory alternatives
which will support our licensing operations at private launch
sites. We in cooperation with other Federal Government agencies,
are considering issuing performance standards for private launch
site operations and challenging the industry to develop
appropriate procedures for meeting these standards. We are also
paying a great deal of attention to methods for encouraging the
development of launch safety expertise in the private sector.
These include possible certification of launch safety inspectors
as well as personnel capable of monitoring launch vehicle assembly
and payload integration.

For the reasons stated both here and in the Notice of Policy attached to this statement, we do not believe that issuance of even interim regulations governing operations at private launch sites is an objective we can responsibly achieve within the 180 day period contemplated by the Act. We hope, nonetheless, to be able to publish within that period a formal document on this subject. This document will specify the issues we believe must be addressed before specific regulations can be drafted. It also will identify the regulatory alternatives we think are available to us to fulfill Congress' intent that commercial launch sites are operated responsibly.

Resource Issues

Let me turn now to the resources I believe will be required to support the work of the Office of Commercial Space Transportation. As I testified before this Subcommittee last year, the Department has made available the necessary resources to support the activities of this Office within the budget request for the Office of the Secretary.

A core staff has been assembled to carry out the provisions of the President's Executive Order and the Commercial Space Launch Act. Eleven full time permanent positions have been officially

assigned to this office, with extensive participation by the staff of the General Counsel's office. In addition, two detailees from the Air Force have been assigned to the Office of Commercial Space Transportation in order to provide technical support in the areas of ELV launch operations and their regulation.

The Department is also enlisting contractor support in the areas of regulatory requirements development, research and alternatives analysis, and the competitive posture of domestic and foreign launch capabilities.

Conclusion

Mr. Chairman, this Committee's leadership assistance has been and will continue to be of critical importance in our efforts to implement the goals articulated in the Commercial Space Launch Act. We view the facilitation of the commercial launch industry as an important component of America's space transportation program. We look forward to your continued interest and support. I will be happy to answer any questions you may have.



Monday February 25, 1985

Part IV

Department of Transportation

Office of the Secretary

14 CFR Ch. III
Commercial Space Transportation;
Licensing Process for Commercial Space
Launch Activities; Notice of Policy and
Request for Comments



space of a vehicle and any payload carried by such vehicle by: (A) Any person from the United States, its territories and possessions, including the territorial sea;

(B) A citizen of the United States or a corporate or other entity organized under U.S. or State law, from outside the United States;

(C) A foreign corporate or other entity controlled, as defined pursuant to section 4(11)(c) of the Act, by a citizen of the U.S. or a corporate entity organized under U.S. or State law at any place which is both outside the United States and outside of the territory of any foreign nation when there is no agreement in force between the United States and a foreign nation which provides that such foreign nation shall exercise jurisdiction over such launch:

(D) A foreign entity, as described in subparagraph (c) above, from the territory of a foreign nation when there is in force an agreement between the United States and such nation concerning the exercise of jurisdiction by the United States over such launch.

The policies and procedures described in this Notice do not apply to Government launches, their payloads, or to the review of Government payloads.

3. Background

In 1982, the Federal Government was presented with the first proposal by a private firm to launch an expendable launch vehicle from a private launch site. At that time, a number of Federal agencies claimed either a direct or indirect regulatory interest in the foreign policy, national security, international treaty or public safety issues attending the launch, but no agency appeared to have direct responsibility for licensing the launch itself. Given the uniqueness and urgency of the proposed launch, the Senior Interagency Group (Space) decided that ELV launches would be considered "exports" and thus be subject to the International Traffic in Arms Regulations (ITAR). Utilization of the ITAR to regulate commercial ELV lounches was seen as an appropriate. though temporary, expedient for addressing most of the domestic and international issues raised by commercial space launches.

As a regulatory apparatus for authorizing and supervising commercial

launch activities, the ITAR proved to have significant limitations. Although he ITAR provided a consultative license approval process for addressing the range of Federal issues raised by private launch activities, none of the Federal agencies responsible for administering regulations applicable to such activities had developed either procedures for reviewing launch applications or criteria for granting approval. As a result, the first private launch applicant was subjected to duplicative reviews and other complications that prolonged the licensing process.

The experience of the first commercial launch applicant created the impetus both for a government-wide effort to devise a more rationalized approach to future launches and for designation of a lead agency to direct that effort. Since its designation as lead agency by Executive Order 12465, DOT has consistently promoted an expedited licensing process that continues to rely on the existing expertise and specialized policy perspective of other Federal agencies. That approach is now mandated by statute. At the same time, DOT's experience in assisting a subsequent launch applicant to obtain Federal approval for its first launch from a site in the Pacific Ocean amply

a site in the Pacific Ocean amply demonstrated that the very nature of the consultative approach to licensing creates a compelling need for a carefully structured and effectively coordinated licensing process.

4. Licensing Policy for Commercial Space Lounch Activities

A. Statutory Requirements. The Commercial Space Launch Act requires that any person intending to launch a launch vehicle or to operate a launch site within the United States, or any United States citizen intending to launch a launch vehicle or to operate a launch site in circumstances described in section 2 of this Notice, obtain a license from the Secretary of Transportation. The Act authorizes the Secretary to issue or transfer licenses for private space launch activities in a manner consistent with public health and safety. the safety of property, and the national security and foreign policy interests of the United States. It directs the Secretary to issue a license if the Secretary finds that an applicant

complies, and will continue to comply. with all applicable requirements imposed by statute and regulation. The Act further directs that conditions that may be necessary to ensure such compliance be incorporated in each license the Secretary issues. Along with the responsibility for protecting public safety and other vital national interests. he Act imposes a concurrent duty on the Secretary to shape a licensing rocess that facilitates the provision of nunch services by the private sector and affords applicants a simplified. expeditious means for securing licenses for launch operations.

B. Licensing Principles. DOT has drawn the basic principles for shaping both the form and substance of its segulatory program from the responsibilities for commercial space launch activities expressly assigned to the Secretary by Congress. The structure of our licensing process must serve, to the extent necessary, the requirements of public safety, national security, and foreign policy as mandated by statute. At the same time DOT's policies and procedures must be formulated in a way that reflects the needs of an emerging industry.

Specifically, the regulatory regime for launch activities must provide firm assurances that such activities not only pose no unreasonable risks to the public but that routine launch activities can in fact be conducted safely. Moreover, a specialized component of the licensing process must focus specific attention on international treaty obligations and the foreign policy and national security dimensions of proposed launch activities. Finally, the Government must oversee launch activities in a manner that provides the industry with the certainty crucial to effective planning and preparation and the flexibility necessary to allow continued growth and innovation.

To meet these responsibilities DOT has developed a licensing process encompassing two distinct components: a Mission Review and a Launch Safety Review (see chart). These reviews may be conducted independently of each other and in the order, sequential or concurrent, that is more appropriate to the nature of the proposed activity and the needs of the applicant.

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Mission Review. Under the Treaty on Frinciples Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and other Celestial Bodies (the Outer Space Treaty), 18 U.S.T. 2410, 610 U.N.T.S. 205, to which the U.S. is a State Party, nongovernmental activities in space require authorization and continuing supervision by the appropriate State Party. Under the Convention on International Liability for Damage Caused by Space Objects (the Liability Convention), 24 U.S.T. 2389, to which the U.S. is also a State Party, the U.S., not private launch entities, agreed to assume liability for damage caused by U.S. space objects in a wide variety of circumstances; these include absolute liability for damage to life and property caused when a space object is launched from U.S. territory or the launch is etherwise conducted or procured by the U.S. This direct liability forms the basis for a broad Federal interest in proposed private space launch activities, one which entends beyond safety issues to include both the purpose of the launch and the nature of the payload. This unique interest in the launch mission distinguishes regulation of commercial space launch activities from regulation of other modes of transportation.

The Mission Review component of the licensing process is intended as the mechanism for addressing these international obligations as well as the national security and foreign policy implications of a given launch. Mission Review focuses on such factors as the purpose and character of the proposed launch, the nature of the payload, and the impact of the launch or payload on existing uses of space. As an example, a psyload must not interfere with other spacecraft or endanger other nations. Mission approval will be granted only upon a determination that the launch will not conflict with vital national

Although Mission Review will address pertain characteristics of the launch. such as the proposed flight plan, in substantial part Mission Review for an orbital launch will center upon the payload. The payload review can occur in one of two ways. If the payload must be licensed by another Federal agency. such as telecommunications satellites licensed by the Federal Communications Commission or private operational remote sensing satellites licensed by the Department of Commerce, DOT would not duplicate the review undertaken in the course of the license process conducted by such agency. Rather. DOT will accept the license so issued as

satisfying the requirements of mission seview pertaining to the payload.

Payloads which are not independently licensed will be reviewed by DOT in consultation with the Departments of State and Defense, and, as appropriate, the National Aeronautics and Space Administration and other agencies to ensure that the payload mission does not conflict with national interests.

Launch Safety Review. As with other transportation systems, the Government has a responsibility to protect the public against any unreasonable risks that space launch activities might pose to either life or property. At present, non-Governmental space launch activities rely solely on unmanned vehicles, a characteristic having important implications for safety enforcement. With manned vehicles, as in aviation, rail, or automotive transportation, a strong correlation exists between system reliability and safety: Critical components cannot fail without endangering the human occupant(s). With unmanned vehicles such as ELV's. where system reliability commonly averages between 95 and 96 percent. safety measures can be framed somewhat independently of mission success. In fact, the most common safety measure employed in the event a critical flight component fails entails thrust termination of the launch vehicle in flight by safety personnel monitoring the launch which results in the destruction of the vehicle. Thus, the launch safety component of the licensing process focuses upon the safety elements of the launch operation and the safety systems of the vehicle; reliability of the vehicle in a non-safety context will be the responsibility of the launch vehicle manufacturers.

As the result of more than two secades of federally-sponsored ELV launch operations, standard practices and procedures have evolved to a point where the safe conduct of routine ELV activities can be virtually assured. To date, for example, not a single public fatality has resulted from a space vehicle launch. This safety record. unmatched in any comparable field, is the result of the comprehensive safety management program employed at U.S. national ranges. This program combines the safety expertise and experience of range personnel, the equipment and facilities needed for safe launch operation, and the vehicle safety systems designed to avoid potential bazards. In the course of a Launch Safety Review, DOT will, in general, be attempting to ascertain whether an applicant's launch safety program can

easure a level of safety comparable to that achieved at the national ranges.

Launch Safety Review will address the range and vehicle safety resources an applicant has assembled to guarantee that launch operations are conducted safely. Specifically, the review will focus on such factors as:

1. Proposed launch site and flight corridor. Is it possible, under any circumstances, to conduct a safe launch on the proposed azimuth from the location selected? Are there unique environmental considerations associated with the launch site?

2. Range safety expertise. What are the qualifications and experience of the ersonnel managing and directing the launch safety process?

3. Ground and flight safety process and procedures. What safety procedures

will the launch operator use? How are these documented and are they

adequate?

4. Range tracking and instrumentation capability. What tracking systems are being used? What is the range of coverage and is it adequate to meet the needs of the proposed launch?

5. Vehicle safety systems (e.g. flight termination). What termination systems design and components will be used? What component and systems tests will be conducted to verify reliability?

6. Proposed vehicle design. Is the vehicle new in concept or untested? Can the applicant's range and proposed safety resources adequately accommodate such vehicle?

Upon receipt of an application, DOT will review the launch proposal in detail to determine whether the safety personnel, systems, procedures and design proposed will affectively protect public safety. During the review, DOT will identify elements of the proposal that may need to be modified in order to

secure safety approval. An applicant's decision concerning the site from which a launch will be conducted can effectively reduce the number of safety issues to be addressed by DOT, thereby shortening the time frame for reviewing and processsing a launch application. If an applicant proposes to launch from an established national range, where safety requirements governing equipment. personnel qualifications, and launch procedures developed by the government operator of the range are already in place, DOT's range launch safety requirements will ordinarily be satisfied by a statement of intention to launch from such range. The launch license issued will be conditioned by the requirement that the applicant comply with all applicable safety requirements

enable the industry to develop in currently unanticipated ways. Because Federal policy so strongly supports innovative private enterprise in commercial space activities, Federal regulation must be correspondingly responsive to such efforts.

This Notice contains the foundation of the regulatory structure for commercial space launch activities. DOT is currently developing the specific requirements that will be integrated with that structure. A number of these regulatory documents will be published shortly, particularly those focusing on areas where launch activity may be imminent or where information useful to the industry can be assembled quickly. These include:

Launch License Regulation. This
document will both reflect and
particularize the licensing process set
out in this Notice. Specifically, it will
sulline the regulatory requirements and
application process for commercial
launches. In addition, it will address
such issues as inspection, verification.
anforcement, and the terms of the
license itself;

• Insurance Regulation. This document will provide guidance on the

Department's role in establishing third party liability insurance requirements.

National Range Use. Federal policy encourages private launch operators to use the national ranges. This information document will describe the various national range facilities, the types of launch support services they provide and their availability. It will provide guidance to potential users on how to gain access to the ranges, the general costs of service and special requirements of the respective ranges.

Within the time period specified by the Act, the Department will promulgate at least interim guidance, if not final regulations, in each of the areas of commercial space transportation licensing for which the Secretary has responsibility. It is recognized, however, that because certain of these areas represent uncharted waters in terms of both Government and industry experience, issuance of final regulations in such areas can not responsibly be achieved within 180 days. This is especially true with respect to the licensing of private commercial launch sites, an aspect of the commercial space launch industry not presently in existence.

DOT has made no o priori determination that procedures developed and utilized at national ranges should be transferred in their totality to private launch sites. In developing regulations applicable to ese and all other areas, however, the Department is required to evaluate regulatory alternatives and to assess the impact, costs and benefits of each alternative. This evaluation process with respect to commercial launch sites is now under way. Once the alternatives have been evaluated, DOT is required to initiate the technical analysis and research needed to support the ultimate development of specific regulatory requirements and standards. The need to comply with these procedural requirements for issuance of regulations, however, will not prevent the Department from meeting—within the time period specified in the Act—its equally important obligation to Congress and to the commercial transportation industry to issue general policy guidance on its approach to regulating commercial launch sites.

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JENNIFER LYNN DORN DIRECTOR, OFFICE OF COMMERCIAL SPACE TRANSPORTATION U.S. DEPARTMENT OF TRANSPORTATION

Secretary of Transportation Elizabeth Hanford Dole appointed

Jennifer (Jenna) Dorn as Director of DOT's Office of Commercial

Space Transportation on February 24, 1984, making the announcement

after President Reagan signed an Executive Order designating the

Department as the lead Federal Agency in the development of

expendable launch space vehicles as commercial business.

Ms. Dorn, 33, served as Acting Director of the Office of Commercial Space Transportation during the planning stages for the ELV program.

Prior to being appointed to her new position, she had served as a Special Assistant to the Secretary.

A graduate of Oregon State University with a Bachelor's Degree in Journalism. She also holds a Master's Degree in Public Administration from the University of Connecticut.

She came to DOT from a position as a professional staff member of the U.S. Senate Appropriations Committee, and before that was legislative assistant to Senator Mark O. Hatfield (R-Oregon).

A native of Corvallis, Ms. Dorn is the daughter of Harold and Ethel Dorn of the city.